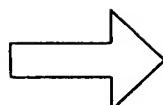
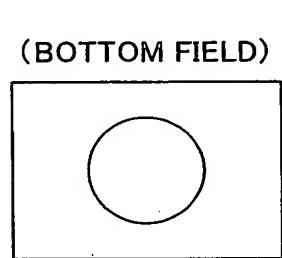
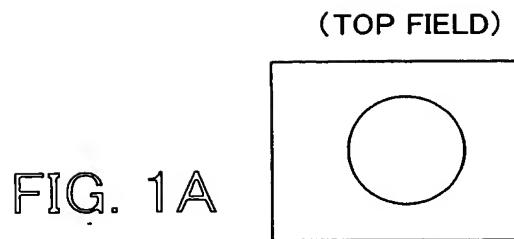
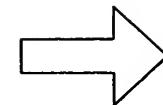
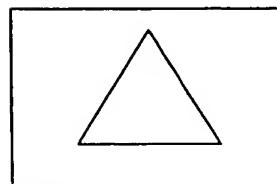
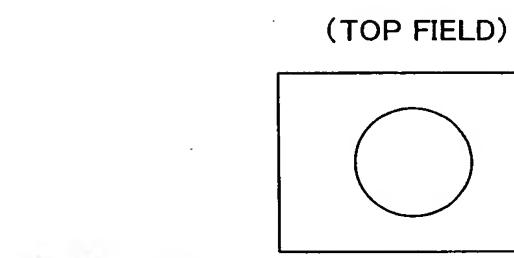
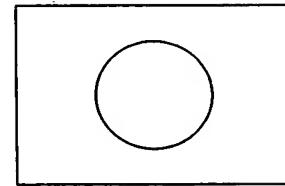


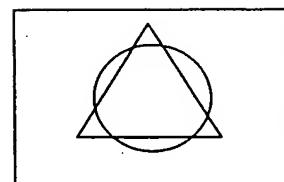
020770US  
FIGS. 1-11



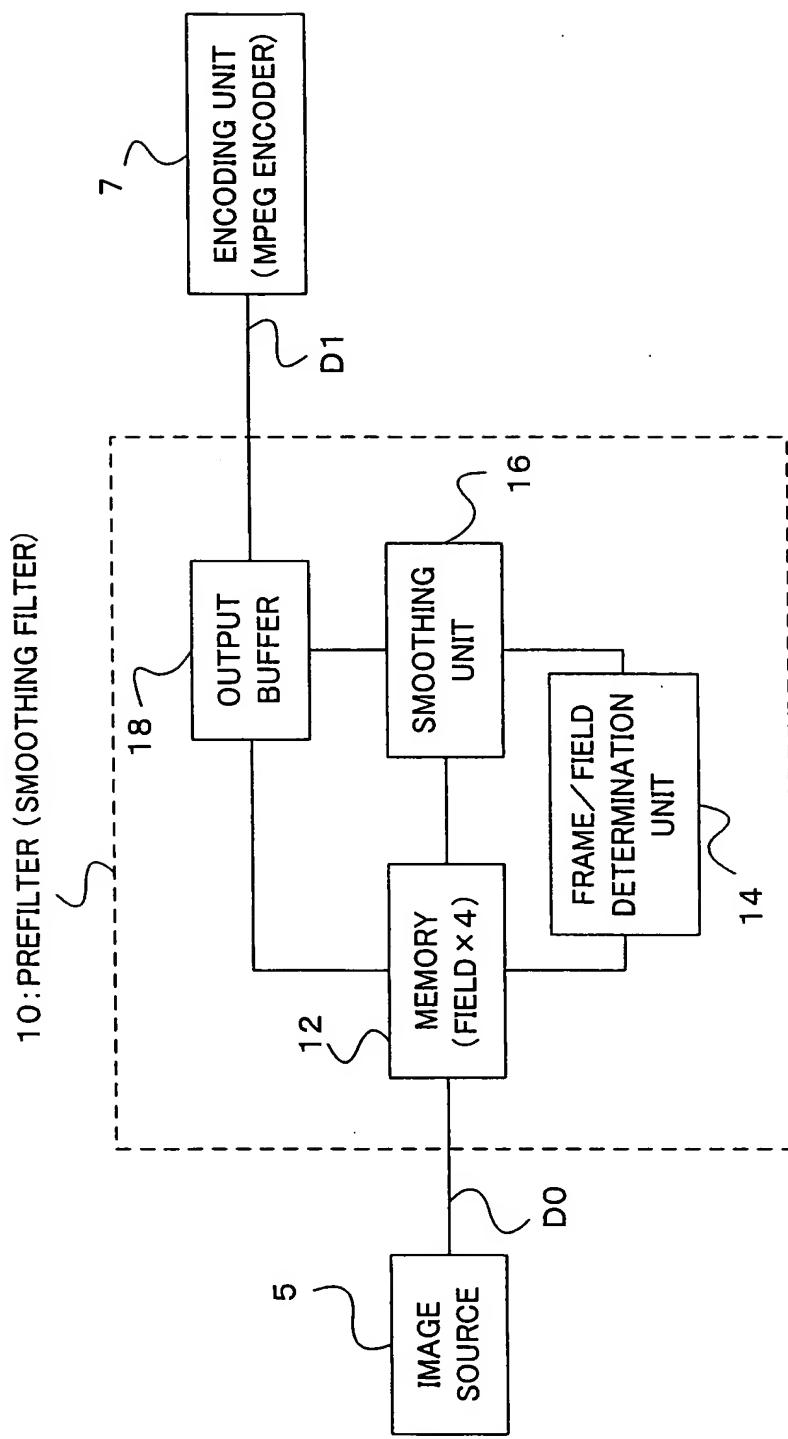
<SMOOTHING>



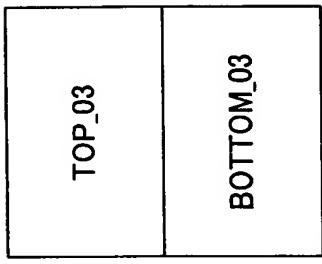
<SMOOTHING>



**FIG. 2**

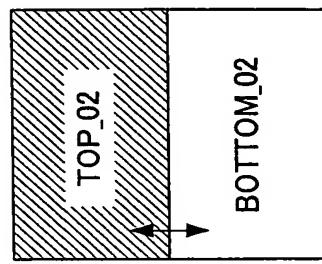


(NEXT FRAME)



fb3

(PROCESSING FRAME)



fb1  
fb2

(PROCESSED FRAME)

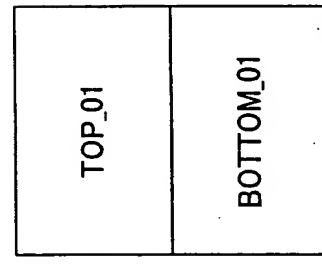
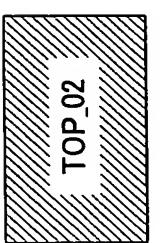


FIG. 3A

FIELD DETERMINATION  
NUMBER  
 $fb1 = \alpha$



FIELD DETERMINATION  
NUMBER  
 $fb1 = \alpha$



FIG. 3B

• IF  $\alpha > \beta$ , SMOOTHING PROCESS IS EXECUTED BY COMBINATION OF TOP\_02 & BOTTOM\_02

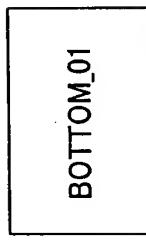
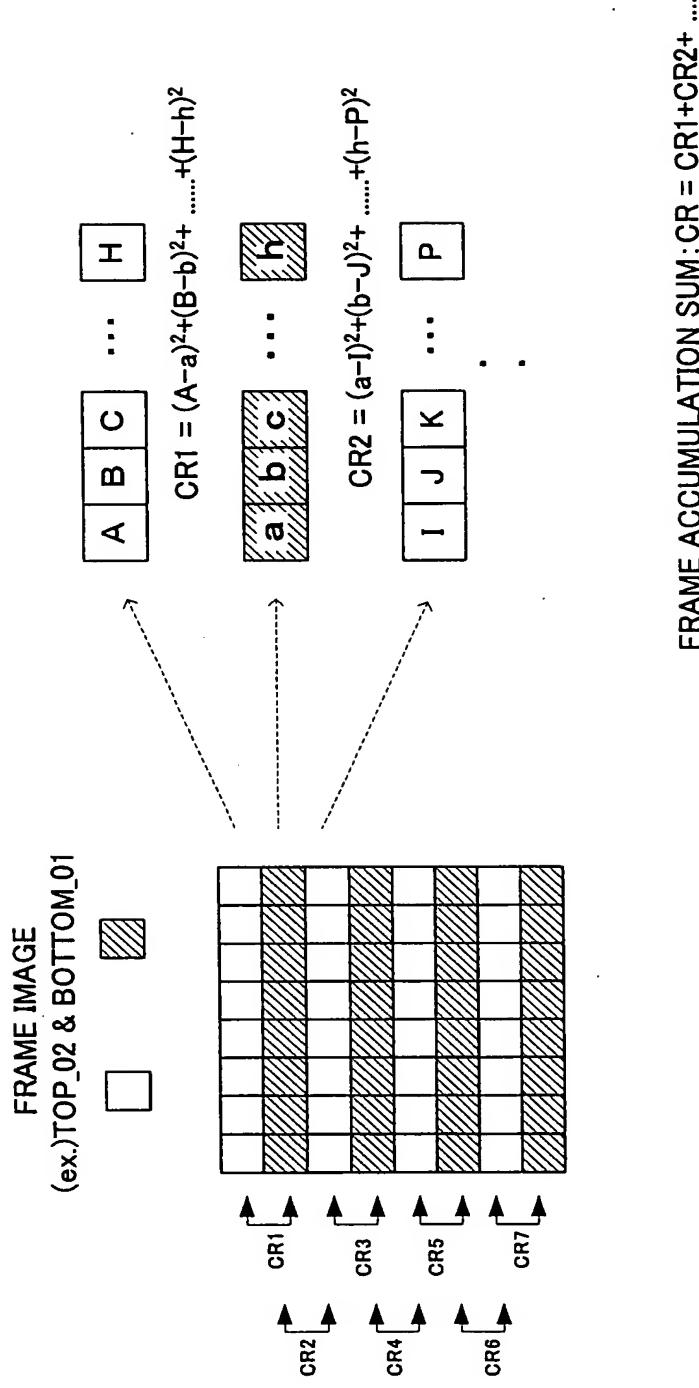
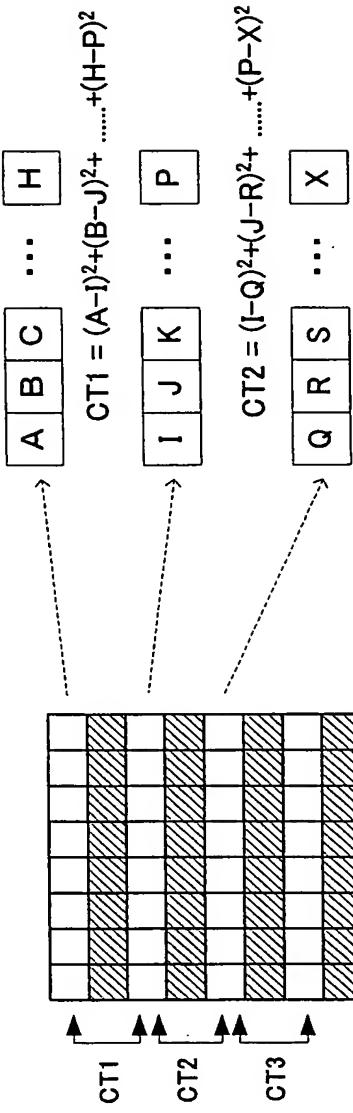


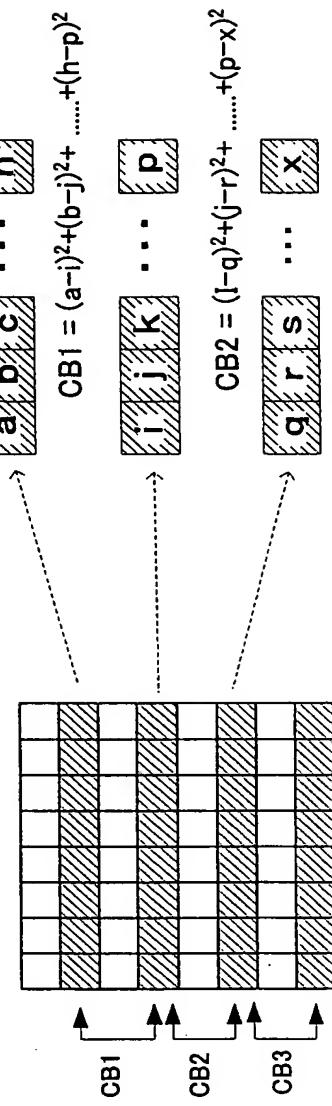
FIG. 4





**FIG. 5A**

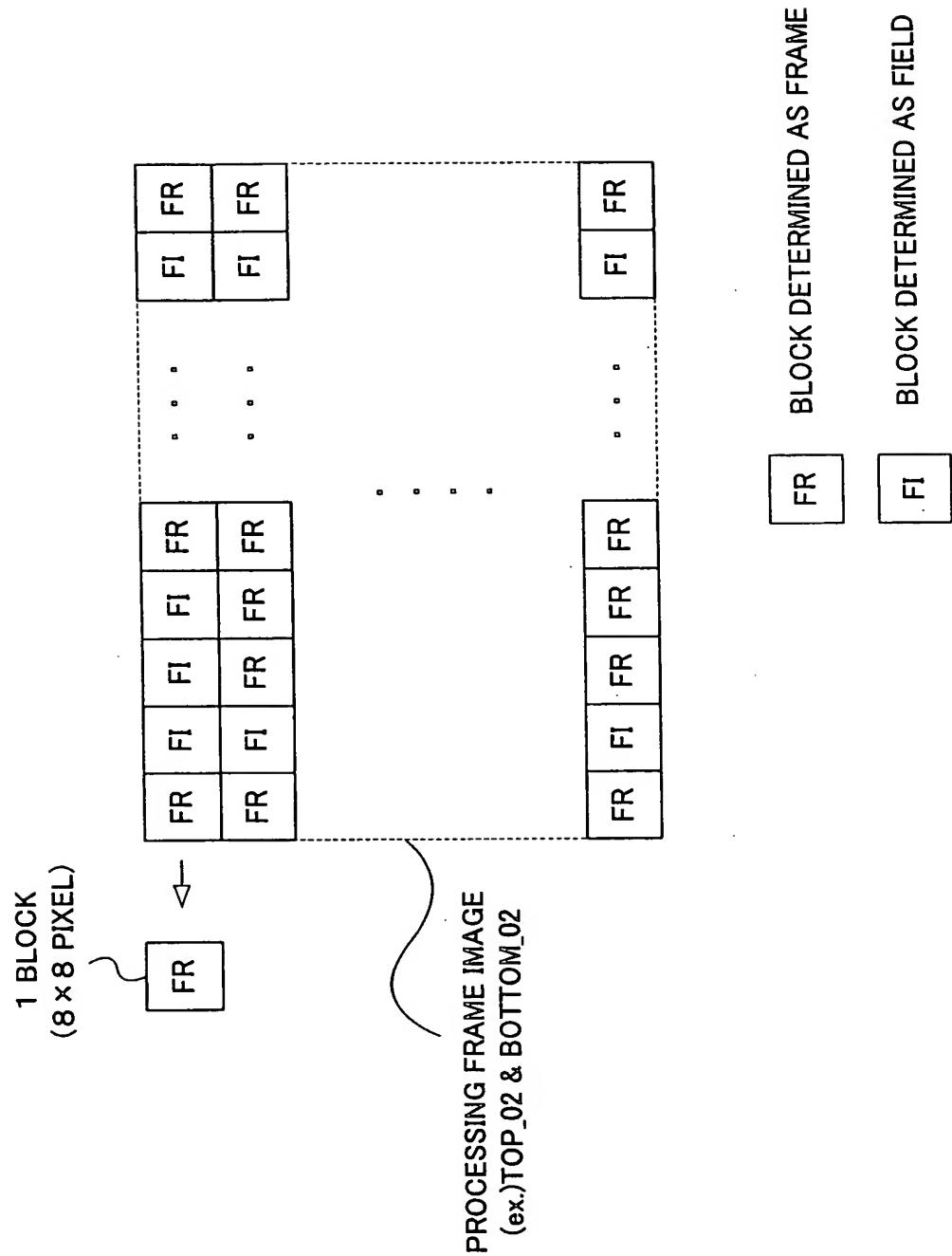
**<TOP FIELD ACCUMULATION SUM: CT = CT1+CT2+CT3>**



**FIG. 5B**

**<BOTTOM FIELD ACCUMULATION SUM: CB = CB1+CB2+CB3>**

6  
FIG.



<SMOOTHING FILTER>

a	a	a
a	1-8a	a
a	a	a

FIG. 7A

<SMOOTHING FILTER>

1-3a	a	
a	1-5a	a
a	a	a

<SMOOTHING FILTER>

a	a	a
a	1-8a	a
a	a	a

FIG. 7B

a	a	a
a	1-5a	a
a	a	a

a	a	
a	1-5a	a

a	a	
a	1-3a	a

PROCESSING IMAGE

FIG. 7C

(VERTICAL DETECTION)      (HORIZONTAL DETECTION)

<SOBEL FILTER>

-1	0	1	-1	-2	-1
-2	0	2	0	0	0
-1	0	1	1	2	1

**FIG. 8A**

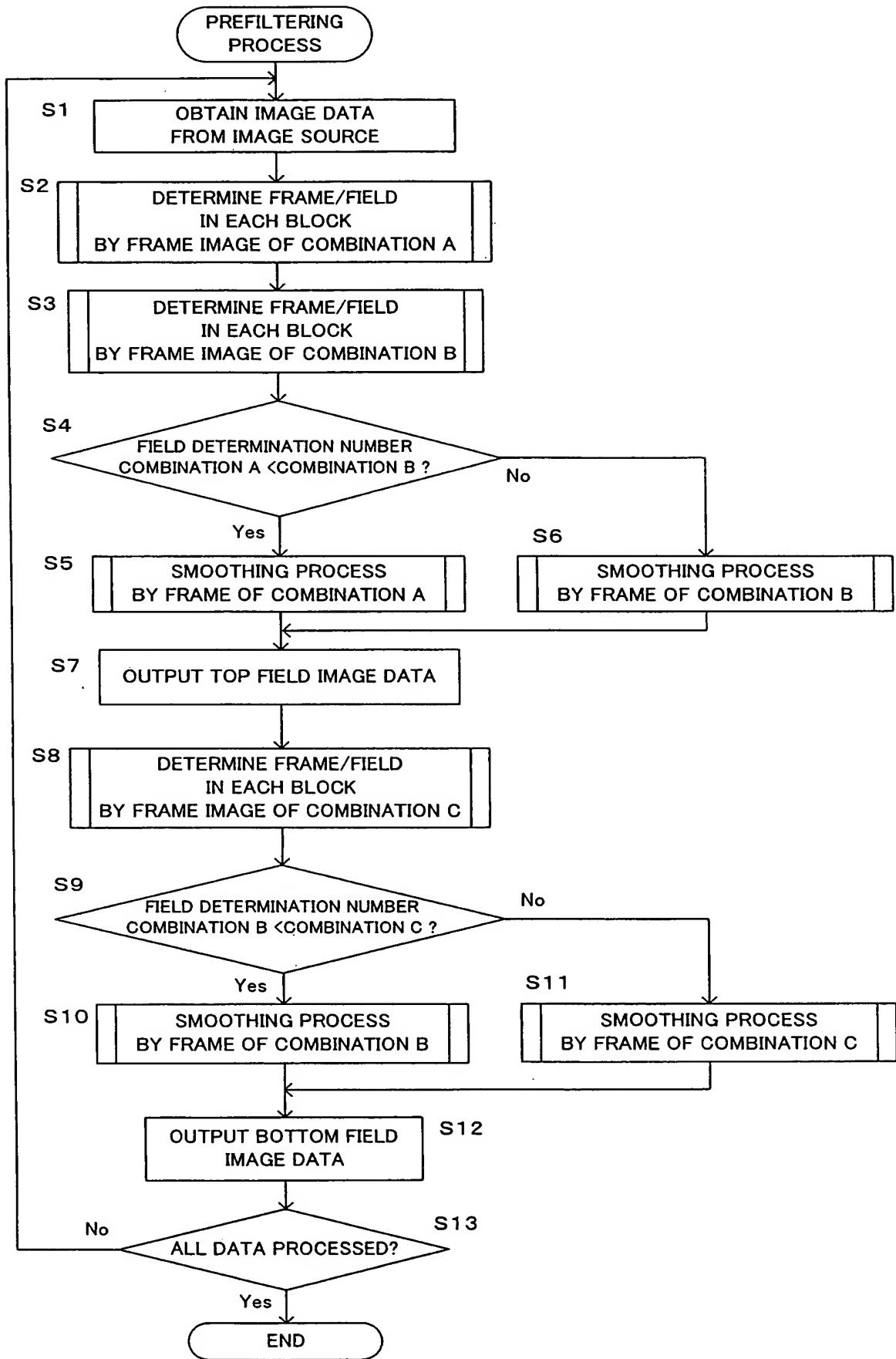
(VERTICAL DETECTION)      (HORIZONTAL DETECTION)

<SOBEL FILTER>

-1	0	1	-1	2	-1
-2	0	2	0	0	0
-1	0	1	1	2	1

**FIG. 8B**

**FIG. 9**



**FIG. 10**

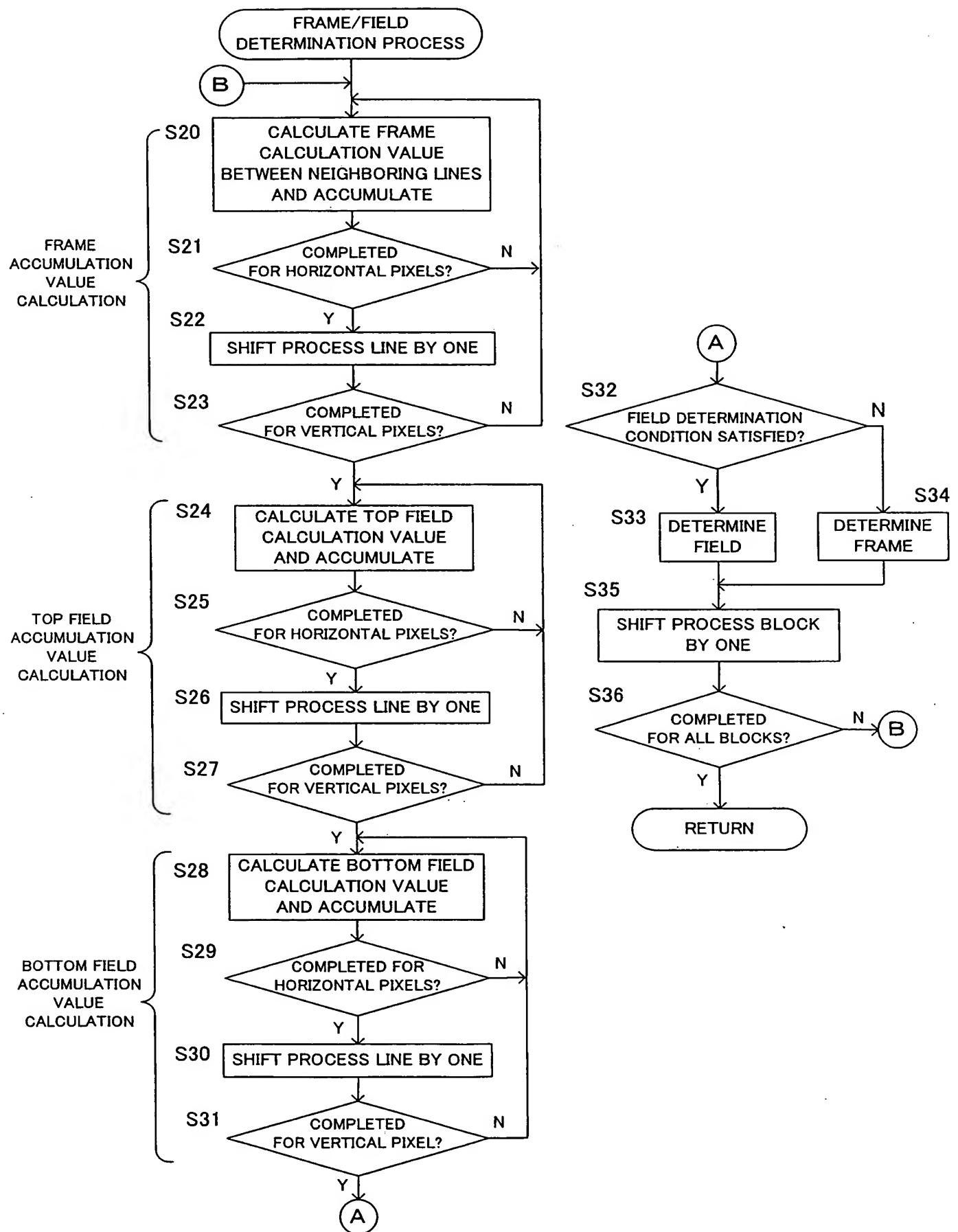


FIG. 11

